

ABSTRACT OF THE DISCLOSURE

5 Provided is an electro-optic reflective modulator comprising a reflective active
material, preferably comprising a reflective organic free radical compound, that reflects a
wavelength in a highly reflective state and is reversibly switched to a transparent and low
reflectivity state at the wavelength by the application of an electric current. Preferably,
the electro-reflective optical modulator is solid state with no moving parts such that the
active material does not move when reversibly switched between the high and low
10 reflective states. Also provided are methods of modulating an optical signal utilizing
such electro-optic reflective modulators.